

## **CLAIMS**

### **What is claimed is:**

1. A method of accessing PCI bus data via a debug card, comprising:
  - accessing to data of the PCI bus via a PCI interface of the debug card;
  - 5 storing the data in a buffer of the debug card;
  - controlling the access to the data stored in the buffer of debug card by means of a data control chip of the debug card;
  - storing the data in a buffer of the data control chip; and
  - extracting the data stored in the buffer of the data control chip via a host interface of the
  - 10 debug card.
2. The method of claim 1, wherein extracting the data stored in the buffer of the data control chip via a host interface of the debug card further comprising:
  - transferring the data stored in the buffer of the data control chip to the host; and
  - analyzing the data stored in the host.
- 15 3. The method of claim 1, wherein controlling the access to the data stored in the buffer of debug card by means of a data control chip of the debug card further comprising:
  - initializing the data control chip;
  - if the data control chip is in an idle status, setting the data control chip; and
  - if the data control chip is not in an idle status, accessing to the PCI bus data stored in the
  - 20 debug card according to the settings of the data control chip.

4. The method of claim 3, wherein initializing the data control chip further comprising:

performing a synchronization setting of the data control chip and debug card;

setting an operating mode of the data control chip;

5 selecting a register address in the data control chip and writing an access control code therein;

setting a data access width of the data control chip; and

clearing the buffer of the debug card.

5. The method of claim 3, wherein if the data control chip is in an idle status setting  
10 the data control chip further comprising:

setting a data access mode of the data control chip;

determining a data access situation of the debug card and performing counting;

setting an amount of data to be accessed each time; and

ending the idle status.

15 6. The method of claim 5, wherein ending the idle status further comprising preparing to perform a next data access.

7. The method of claim 3, wherein if the data control chip is not in an idle status, accessing to the PCI bus data according to the settings of the data control chip means accessing to the PCI bus data according to a control code stored in a register of the data  
20 control chip.

8. A debug card device, comprising:

- a PCI interface operable as a connecting interface with a PCI bus;
  - a storage module for storing PCI bus data; and
  - a data control chip operable to control the access and transmission of PCI bus data, the data control chip including:
    - 5 an access control module for controlling data access according to a control signal;
    - a transmission control module for controlling data transmission according to a control signal;
    - a data storage module for storing PCI bus data obtained from the debug card;
  - 10 a register for storing an access control command; and
  - a host interface operable as an interface with a host.
9. The debug card device of claim 8, further being connected to a host via a host interface, wherein the host comprising:
- a host interface operable as a connecting interface with the debug card;
  - 15 a data access module operable to control the access of the PCI bus data in the data control chip of the debug card;
  - a driving module providing an access control firmware program; and
  - a data storage module for storing extracted PCI bus data.
10. The debug card device of claim 8, wherein the storage module is a buffer of the
- 20 debug card.
11. The debug card device of claim 8, wherein the data storage module is a buffer of

the data control chip.

12. The debug card device of claim 8, wherein the host interface is a USB interface.
13. The debug card device of claim 9, wherein the host interface is a USB interface.